



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/643,203	08/22/2000	Mohammad T. Fatehi	Fatehi 37-21-20	8394
30594	7590	01/25/2005	EXAMINER	
HARNES, DICKEY & PIERCE, P.L.C.			KADING, JOSHUA A	
P.O. BOX 8910			ART UNIT	
RESTON, VA 20195			PAPER NUMBER	

2661

DATE MAILED: 01/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/643,203

Applicant(s)

FATEHI ET AL

Examiner

Joshua Kading

Art Unit

2661

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 September 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 and 9-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 9-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

5 A person shall be entitled to a patent unless --

10 (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

15 Claims 14, 17, 18, and 19 are rejected under 35 U.S.C. 102(e) as being anticipated by Stacey et al. (U.S. Patent 6,434,154 B1).

 In regard to claim 14, Stacey discloses "a method of transporting information in an optical communication network having interconnected network nodes and one or more user nodes coupled to network nodes (col. 4, lines 18-26), the method comprising:

20 forming a digital container at a first network node, the digital container including a header section and a payload section, wherein the payload section is capable of carrying a plurality of separate transmissions (figure 4 where a description of figure 4 is found in col. 5, lines 64-col. 6, lines 1-4; figure 5 shows the forming of the multiplexed digital container of figure 4 at the beginning node) and each transmission may be

25 formatted according to one of many different protocols (col. 5, lines 64-col. 6, lines 1-29 where it is strongly suggested here that each mini-cell is data from a user or service, which all have their own protocol by which they adhere (for example, voice and audio

have different protocols for processing); further, since each larger ATM cell is constructed of many mini-cells, each ATM cell could have one to many different protocols within its payload); and

addressing the digital container for routing to a second network node such that
5 routing of the digital container through the communication network is based only on destination information contained within the header section of the digital container, wherein the payload section of the digital container includes transmissions for only the one or more user nodes serviced by the second network node (figure 5 where the flow has been transmitted from one end (a first node) to the other end (a second node) and
10 where a description of figure 5 can be read in col. 6, lines 41-50 where the switching at the adaptation layer means that the digital container has been addressed to the end node (the second node) only through the header and not through each individual mini-cell or transmission).”

15 In regard to claim 17, Stacey discloses “a method of transporting information in an optical communication network having interconnected network nodes and one or more user nodes coupled to network nodes (col. 4, lines 18-26), the method comprising:

in a first network node (figure 5, where element 52 can act as a first or last node of the network in figure 5),

20 a processor for forming a digital container including a header section and a payload section, wherein the payload section is capable of carrying a plurality of separate transmissions (figure 4 where a description of figure 4 is found in col. 5, lines

64-col. 6, lines 1-4; figure 5 shows the forming of the multiplexed digital container of figure 4 at the beginning node; it should be noted that the processor is inherent in the network node because to form and transmit the digital piece of information, a processor must execute these processes) and each transmission may be formatted according to one of many different protocols (col. 5, lines 64-col. 6, lines 1-29 where it is strongly suggested here that each mini-cell is data from a user or service, which all have their own protocol by which they adhere (for example, voice and audio have different protocols for processing); further, since each larger ATM cell is constructed of many mini-cells, each ATM cell could have one to many different protocols within its payload), and

a routing element for routing the digital container to a second network node based only on destination information contained within the header section of the digital container (figure 5, element 51 is a switch which, as seen from figure 5, uses the AAL-2 header as routing information for the data that is sent to the node); and

in a second network node, a processor for receiving and processing the digital container and routing the separate transmissions carried in the payload section of the digital container to one or more user nodes serviced by the second network node, wherein the payload section of the digital container includes transmissions for only the one or more user nodes serviced by the second network node (figure 4, shows the payload section of the ATM cell that includes transmissions (ATM mini cells) from one or more user nodes; figure 5, where the last element in the network path, similar to that of element 52, is the end node in the network that receives the single multiplexed data

that has arrived from the ATM network and demultiplexes it into its respective mini cells, thus ready for transmission to the one or more user destinations; it should be noted that although a processor is not mentioned or shown, it is inherent that a node that processes data (such as the process of demultiplexing) must have a processor of sorts
5 as a processor is the only way to change electrical data from one form to another)."

In regard to claim 18, Stacey discloses "in an optical communication network having a plurality of network nodes and one or more user nodes coupled to one or more of the plurality of network nodes (col. 4, lines 18-26), a first network node for
10 transporting information in the communication network comprising:

a processor operable to form a digital container including a header section and a payload section, wherein the payload section is capable of carrying a plurality of separate transmissions and each transmission may be formatted according to one of many different protocols (col. 5, lines 64-col. 6, lines 1-29 where it is strongly suggested
15 here that each mini-cell is data from a user or service, which all have their own protocol by which they adhere (for example, voice and audio have different protocols for processing); further, since each larger ATM cell is constructed of many mini-cells, each ATM cell could have one to many different protocols within its payload) and further operable to address the digital container for routing to a second network node (figure 4,
20 shows the payload section of the ATM cell that includes transmissions (ATM mini cells) from one or more user nodes; figure 5, where the last element in the network path, similar to that of element 52, is the end node in the network that receives the single

Art Unit: 2661

multiplexed data that has arrived from the ATM network and demultiplexes it into its respective mini cells, thus ready for transmission to the one or more user destinations; it should be noted that although a processor is not mentioned or shown, it is inherent that a node that processes data (such as the process of demultiplexing) must have a processor of sorts as a processor is the only way to change electrical data from one form to another);

and a routing element for routing the digital container to a second network node based only on destination information contained within the header section of the digital container, wherein the payload section of the digital container includes information for only the one or more user nodes serviced by the second network node" (figure 5, element 51 is a switch which, as seen from figure 5, uses the AAL-2 header as routing information for the data that is sent to the node)."

In regard to claim 19, Stacey discloses "in an optical communication network having a plurality of network nodes and one or more user nodes coupled to one or more of the plurality of network nodes (col. 4, lines 18-26), a destination network node for transporting information in the communication network comprising:

means for receiving a digital container transmitted by a first network node using only destination information corresponding to the digital container, the digital container including a header section and a payload section (figure 5, element 51 which has received the ATM cell information from node 52 and where the ATM cell is structured as that of the ATM cell in figure 4, having a header and payload), wherein the payload

section is capable of carrying a plurality of separate transmissions (figure 4, shows the payload section of the ATM cell that includes transmissions (ATM mini cells) from one or more user nodes) and each transmission may be formatted according to one of many different protocols (col. 5, lines 64-col. 6, lines 1-29 where it is strongly suggested here that each mini-cell is data from a user or service, which all have their own protocol by which they adhere (for example, voice and audio have different protocols for processing); further, since each larger ATM cell is constructed of many mini-cells, each ATM cell could have one to many different protocols within its payload);

and means for processing the digital container and for routing the separate transmissions carried in the payload section of the digital container to one or more user nodes serviced by the second network node (figure 5, where the last element in the network path, similar to that of element 52, is the end node in the network that receives the single multiplexed data that has arrived from the ATM network and demultiplexes it into its respective mini cells, thus ready for transmission to the separate destinations), wherein the payload section of the digital container includes transmissions for only the one or more user nodes serviced by the second network node" (figure 4, shows the payload section of the ATM cell that includes transmissions (ATM mini cells) from one or more user nodes)."

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 2661

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-6, 10, 11, and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stacey et al. in view of Easki et al. (U.S. Patent 5,440,547).

In regard to claim 1, Stacey discloses "a method of transporting information in an optical communication network having interconnected network nodes and one or more user nodes coupled to network nodes" (col. 4, lines 18-26), "the method comprising:

forming a digital container at a first network node, the digital container including a header section and a payload section, wherein the payload section is capable of carrying a plurality of separate transmissions (figure 4 where a description of figure 4 is found in col. 5, lines 64-col. 6, lines 1-4; figure 5 shows the forming of the multiplexed digital container of figure 4 at the beginning node) and each transmission may be formatted according to one of many different protocols (col. 5, lines 64-col. 6, lines 1-29 where it is strongly suggested here that each mini-cell is data from a user or service, which all have their own protocol by which they adhere (for example, voice and audio have different protocols for processing); further, since each larger ATM cell is constructed of many mini-cells, each ATM cell could have one to many different protocols within its payload);

routing the digital container through the communication network based only on destination information contained within the header section of the digital container

(figure 5, element 51 is a switch which, as seen from figure 5, uses the AAL-2 header as routing information for the data that is sent to the node);

routing the separate transmissions carried in the payload section of the digital container to one or more user nodes serviced by the second network node (figure 5, where the last element in the network path, similar to that of element 52, is the end node in the network that receives the single multiplexed data that has arrived from the ATM network and demultiplexes it into its respective mini cells, thus ready for transmission to the separate destinations), wherein the payload section of the digital container includes transmissions for only the one or more user nodes serviced by the second network node (figure 4, shows the payload section of the ATM cell that includes transmissions (ATM mini cells) from one or more user nodes).”

However, Stacey lacks what Easki discloses, that is “receiving and processing the digital container at a second network node (col. 2, lines 26-35 where the term “nodes” says there is more than one and therefore the digital container must be received and processed by a second network node).”

It would have been obvious to one with ordinary skill in the art at the time of invention to include the receiving and processing the digital container at a second network node for the purpose of routing the digital container onto the final node in the destination. The motivation is that by routing the digital container to the second node the larger amount of multiplexed data than each individual transmission has been transmitted effectively and efficiently across the network (Stacey, col. 3, lines 58-61).

In regard to claim 2, Stacey and Easki disclose the method of claim 1. However, Easki lacks what Stacey further discloses, that is “the step of processing the separate transmissions according to the one or more protocols at the one or more user nodes” (figure 5 where the flow has been transmitted from one end (the first node) to the other end (the second node) and where a description of figure 5 can be read in col. 6, lines 41-50 where at the first node, a plurality of users or transmissions are multiplexed into the flow and thus at the end or second node they will be demultiplexed and routed to their appropriate destinations). It would have been obvious to one with ordinary skill in the art at the time of invention to include the additional step of processing with the method of claim 1 for the same reasons and motivation as in claim 1.

In regard to claim 3, Stacey and Easki disclose the method of claim 1. However, Easki lacks what Stacey further discloses, that is “the payload section of the digital container comprises a heterogeneous payload having a plurality of units of traffic selected from the group consisting of an ATM cell...” (col. 4, lines 24-26). It would have been obvious to one with ordinary skill in the art at the time of invention to include the plurality of units subscribing to the ATM protocol with the method of claim 1 for the same reasons and motivation as in claim 1.

In regard to claim 4, Stacey and Easki disclose the method of claim 1. However, Stacey lacks what Easki further discloses, that is “the digital container is formed as a signaling-type container for establishing a communications connection between network

nodes" (col. 3, lines 3-13 where it is reasonable to assume that the signaling channel of Easki will employ the same digital container creation for signaling messages as is done in Stacey and use these signals to perform connection-setting procedures, i.e. setup connections between nodes). It would have been obvious to one with ordinary skill in the art at the time of invention to include the signal-type container with the method of claim 1 for the same reasons and motivation as in claim 1.

In regard to claim 5, Stacey and Easki disclose the method of claim 1. However, Stacey lacks what Easki further discloses, that is "the digital container is formed as a signaling-type container for establishing a communications connection between user nodes" (col. 3, lines 3-13 where it is reasonable to assume that the signaling channel of Easki will employ the same digital container creation for signaling messages as is done in Stacey and use these signals to perform connection-setting procedures, i.e. setup connections between nodes). It would have been obvious to one with ordinary skill in the art at the time of invention to include the signal-type container with the method of claim 1 for the same reasons and motivation as in claim 1.

In regard to claim 6, Stacey and Easki disclose the method of claim 1. However, Stacey lacks what Easki further discloses, that is "the step of forming comprises forming a digital container of a fixed size" (col. 1, lines 51-55). It would have been obvious to one with ordinary skill in the art at the time of invention to include the digital container of fixed size with the method of claim 1 for the same reasons and motivation as in claim 1.

In regard to claim 10, Stacey and Easki disclose the method of claim 1. However, Stacey lacks what Easki further discloses, that is "the header section further includes a payload control field for indicating whether contents of the payload section of the digital container are dedicated to a single user node" (col. 39, lines 19-25 and 43-55 where the VPI field describes a destination address, which can further identify a single SAP, and although an SAP is not explicitly described as a user, it can be treated as an "end point" in communication). It would have been obvious to one with ordinary skill in the art at the time of invention to include the payload control field with the method of claim 1 for the same reasons and motivation as in claim 1.

In regard to claim 11, Stacey and Easki disclose the method of claim 1. However, Stacey lacks what Easki further discloses, that is "the header section further includes a payload control field for indicating whether contents of the payload section of the digital container are intended for two or more user nodes serviced by the same network node" (col. 39, lines 19-25 and 43-55 where the VPI field describes a destination address, which can further identify a multicast or broadcast (two or more users)). It would have been obvious to one with ordinary skill in the art at the time of invention to include the payload control field with the method of claim 1 for the same reasons and motivation as in claim 1.

In regard to claim 15, Stacey discloses "a method of transporting information in an optical communication network having interconnected network nodes and one or more user nodes coupled to network nodes" (col. 4, lines 18-26), "the method comprising:

5 receiving, at a second network node, a digital container transmitted by a first network node using only destination information corresponding to the digital container (figure 5, element 51 is a switch which, as seen from figure 5, uses the AAL-2 header as routing information for the data that is sent to the node), the digital container including a header section and a payload section, wherein the payload section is capable of
10 carrying a plurality of separate transmissions (figure 4, shows the payload section of the ATM cell that includes transmissions (ATM mini cells) from one or more user nodes) and each transmission may be formatted according to one of many different protocols (col. 5, lines 64-col. 6, lines 1-29 where it is strongly suggested here that each mini-cell is data from a user or service, which all have their own protocol by which they adhere
15 (for example, voice and audio have different protocols for processing); further, since each larger ATM cell is constructed of many mini-cells, each ATM cell could have one to many different protocols within its payload);

 routing the separate transmissions carried in the payload section of the digital container to one or more user nodes serviced by the second network node (figure 5
20 where the flow has been transmitted from one end (the first node) to the other end (the second node) and where a description of figure 5 can be read in col. 6, lines 41-50 where at the first node, a plurality of users or transmissions are multiplexed into the flow

and thus at the end or second node they will be demultiplexed and routed to their appropriate destinations), wherein the payload section of the digital container includes transmissions for only the one or more user nodes serviced by the second network node (figure 4, shows the payload section of the ATM cell that includes transmissions
5 (ATM mini cells) from one or more user nodes)."

However, Stacey lacks what Easki discloses, that is "processing the digital container at the second network node (col. 2, lines 26-35 where the term "nodes" says there is more than one and therefore the digital container must be received and processed by a second network node)."

10 It would have been obvious to one with ordinary skill in the art at the time of invention to include the processing of the digital container at a second network node for the purpose of routing the digital container onto the final node in the destination. The motivation is that by routing the digital container to the second node the larger amount of multiplexed data than each individual transmission has been transmitted effectively
15 and efficiently across the network (Stacey, col. 3, lines 58-61).

Claims 9, 12, and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stacey et al. and Easki et al. as applied to claim 1 above, and further in view of Ghaibeh et al. (U.S. Patent 5,926,478).

20 In regard to claim 9, Stacey and Easki disclose the method according to claim 1. However, Stacey and Easki lack what Ghaibeh discloses, that is "the header section

includes an optical logical channel identification (OLCI) field for identifying the destination of the digital container" (figure 2, element 80 and figure 4, element 80, 82, and 84, although Ghaibeh does not explicitly describe an OLCI field that defines a destination of a digital container as described in claim 1, Ghaibeh does disclose the functional equivalent of an OLCI field for an ATM cell, i.e. the VPI/VCI field; Ghaibeh uses the VPI/VCI field as a destination identifier field in an ATM cell that directs the cell to the destination regardless of what's in the payload). It would have been obvious to one with ordinary skill in the art at the time of invention to include the OLCI with the method of claim 1 for the purpose of identifying where the payload is destined (Ghaibeh, col. 5, lines 37-40). The motivation for this being that by identifying the appropriate destination for the payload, the contents of the payload can then be routed to their appropriate destinations, thus completing the transmission process.

In regard to claim 12, Stacey, Easki, and Ghaibeh disclose the method according to claim 9. However, Stacey and Easki lack what Ghaibeh further discloses, that is "the OLCI field comprises a network node destination address and one or more user node destination addresses, wherein the network node destination address corresponds to the second network node and wherein the one or more user node destination addresses correspond to one or more user nodes serviced by the second network node" (although Ghaibeh does not explicitly state the VPI or VCI are the network or user node addresses, they are taken to be the functional equivalents of the network and user node addresses. The VPI and VCI disclose the destination and circuit path. In order to reach

the destination, the addresses of the network node and the final user node must be known or determined through the addressing of the ATM cell, i.e. the VPI represents the network node address and the VCI represents the user node address). It would have been obvious to one with ordinary skill in the art at the time of invention to include the two addresses with the method of claim 9 for the same reasons and motivation as in claim 9.

In regard to claim 13, Stacey, Easki, and Ghaibeh disclose the method according to claim 9. However, Stacey and Easki lack what Ghaibeh further disclose, that is "the step of routing the digital container comprises routing the digital container based on the destination identified in the OCLI field (figure 4, element 84 where the VPI/VCI values are used to route the data to its intended destination as described in parent claims 9 and 12 and as is known in the art)." It would have been obvious to one with ordinary skill in the art at the time of invention to include the routing based on the OCLI field with the method of claim 9 for the same reasons and motivation as in claim 9.

Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Easki et al. in view of Stacey et al. and further in view of Sathe et al. (U.S. Patent 5,617,417).

In regard to claim 16, Easki discloses "a method of transporting information in a... communication network having interconnected network nodes and one or more user nodes coupled to network nodes" (figure 1 shows network nodes (30, 34, 32), user nodes (12, 14, 16, 18, 20, 22, 24)), "the method comprising:

a) establishing a communications connection between a first and second network node by

1) forming a first digital container at a first network node, the first digital container including signaling information for establishing a route between the first and second network nodes (col. 3, lines 3-13 where it is reasonable to assume that the signaling channel of Easki will employ the digital container creation for signaling messages as is typical in an ATM system)

2) routing the first digital container through the communication network (col. 3, lines 3-13 where it is implied that data, including signaling data, will be routed or switched through the network)

3) receiving and processing the first digital container at the second network node to thereby establish the communication connection" (col. 3, lines 3-13 where it is implied that the "connection-setting procedure" is used to connect two nodes, and as such the second node of the connection must process the signaling container so as to learn the connection requirements and standards, thus allowing the node to establish communication with the first node);

"b) establishing a signaling connection between a first and second user node, the first user node being coupled to the first network node and the second user node being coupled to the second network node (col. 3, lines 3-13 where the "metasignaling channel" is a signaling connection between two nodes and although two user nodes are not explicitly disclosed, it is assumed that there must be two user nodes communicating through the network, using the channels setup to service their communications)...

3) receiving and processing the second digital container at the second network node (col. 2, lines 26-35 where the term "nodes" says there is more than one and therefore the digital container must be received and processed by a second network node); 4) routing the one or more... messages carried in the payload section of the second digital container to the second user node serviced by the second network node, such that signaling is established between the first and second user nodes (col. 3, lines 3-13 where it is implied that data, including signaling data, will be routed or switched through the network to a second user node that is the intended recipient of the communication)."

However, Easki lacks what Stacey discloses, that is "1) forming a second digital container at a first network node, the digital container including a head section and a payload section (figure 4 and the description of figure 4 in col. 5, lines 64-col. 6, lines 1-4 where although it is not explicitly mentioned that a "second digital container" is formed, the general process of forming a generic digital container is disclosed, which includes the forming of a second digital container with a header and payload)..."

2) routing the second digital container through the communication network based only on destination information contained within the header section of the second digital container (figure 5, element 51 is a switch which, as seen from figure 5, uses the AAL-2 header as routing information for the data that is sent to the node)..."

However, Easki and Stacey further lack what Sathe discloses, that is for the second digital container "the payload section comprises one or more signaling messages supplied by the first user node (figure 6 represents a control message being

Art Unit: 2661

constructed of a plurality of control fields from a plurality of different cells, each from a different node/user, each control field is a functional equivalent of a signaling message because of its capacity of submitting control instructions, which tell the nodes to perform certain actions related to the function of the communication, to the appropriate

5 nodes)..."

It would have been obvious to one with ordinary skill in the art at the time of invention to include the forming of the second digital container which, includes signaling messages in the payload section for the purpose of informing nodes of important changes to the network (Sathe, col. 8, lines 3-7). The motivation for this being that

10 updating any changes to the network allows each node to be aware of links that are capable of transmission and those that are not.

Response to Arguments

Applicant's arguments filed 8 September 2004 have been fully considered but

15 they are not persuasive.

Regarding claims 1-6, 9-15, and 17-19, applicant argues that none of the prior art references (Stacey, Easki, Sathe, or Ghaibeh) disclose the limitation "each transmission may be formatted according to one of many different protocols." The examiner

20 respectfully disagrees.

As seen in Stacey in figure 4, there is a plurality of different ATM mini-cells used to create a larger, fixed size ATM cell. These ATM mini-cells carry different data in each

and there is no requirement that the data of each ATM mini-cell conform to the same protocol. Support for this is read in col. 5, lines 64-col. 6, lines 1-29 of Stacey. The ATM mini-cells can support different users or services, each of which has a corresponding protocol such as with voice, audio, and e-mail. Further, the different bit rates that can be accommodated in the ATM mini-cells is another strong indication that the mini-cells do not need to conform to any particular protocol. Therefore, Stacey fully reads on applicant's newly added limitation and all rejections are maintained.

Regarding claim 16, applicant argues that Easki, Stacey, and Sathe do not disclose applicant's claimed invention. Specifically that the signaling messages (control messages) were placed in the payload section of a message. The examiner respectfully disagrees.

As read in Sathe, col. 6, lines 18-19 and 55-67, it is explained that the contents or payload of the control message (a newly formed digital container) contain the control or signal information from each cell. It is true that this control information was originally contained in a header of each original cell, but when the control information was extracted from its corresponding cell and placed into a new "multiplexed" control message, it became part of the larger control message's payload and sent to its destination for further processing. Therefore, Easki, Stacey, and Sathe fully read on applicant's claimed invention.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Pinder et al. (U.S. Patent 6,219,358 B1) and Pinder et al. (U.S. Patent 6,105,134) show the use of MPEG transport packets for transporting many different types of data conforming to many different protocols over single transmission. Brueckheimer et al. (U.S. Patent 6,574,224 B1) discloses the use of the ATM mini-cells (each containing different data types of different protocols) in creating a larger ATM cell.

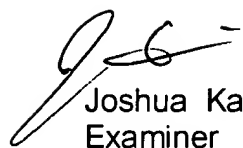
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joshua Kading whose telephone number is (571) 272-3070. The examiner can normally be reached on M-F: 8:30AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kenneth Vanderpuye can be reached on (571) 272-3078. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

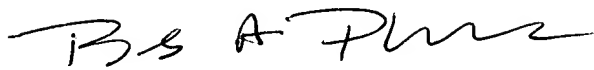
Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Application/Control Number: 09/643,203
Art Unit: 2661

Page 22


Joshua Kading
Examiner
Art Unit 2661

January 12, 2005


BOB PHUNKULH
PRIMARY EXAMINER